

IN THE CLAIMS:

Please cancel Claims 1, 8 to 10 and 13 to 16 without prejudice or disclaimer of subject matter. Please amend Claims 2 to 4, 11 and 12 as follows. Please add Claims 17 to 28 as shown below. The claims, as pending in the subject application, read as follows.

1. (Cancelled)

2. (Currently Amended) A coordinate input apparatus which detects position coordinates of a coordinate input pointing tool, comprising:
calculation means for calculating position coordinates in a space defined by first to third axes of the coordinate input pointing tool;
comparison means for comparing a value of the first axis of the coordinate values calculated by the calculation means with a predetermined value;
determination means for determining whether the coordinate values of the second and third axes of the coordinate values calculated by the calculation means fall within a predetermined range; and
output means for outputting the coordinate values calculated by the calculation means in a coordinate output form determined on the basis of a comparison result by the comparison means and a determination result by the determination means,
wherein the coordinate output form includes at least
an absolute coordinate output form in which the calculated coordinate values are directly output, and

a relative coordinate output form in which differential values between the calculated coordinate values and predetermined coordinate values are output.

~~The apparatus according to claim 1;~~ wherein the predetermined coordinate values are first effective coordinate values during a continuous input period in which coordinate input is continuously executed, and

the apparatus further comprises storage means for storing the first effective position coordinates calculated by said calculation means during the continuous input period as the predetermined coordinate values.

3. (Currently Amended) A coordinate input apparatus which detects position coordinates of a coordinate input pointing tool, comprising:
- calculation means for calculating position coordinates in a space defined by first to third axes of the coordinate input pointing tool;
- comparison means for comparing a value of the first axis of the coordinate values calculated by the calculation means with a predetermined value;
- determination means for determining whether the coordinate values of the second and third axes of the coordinate values calculated by the calculation means fall within a predetermined range; and
- output means for outputting the coordinate values calculated by the calculation means in a coordinate output form determined on the basis of a comparison result by the comparison means and a determination result by the determination means,
- wherein the coordinate output form includes at least

an absolute coordinate output form in which the calculated coordinate values are directly output, and

a relative coordinate output form in which differential values between the calculated coordinate values and predetermined coordinate values are output,

~~The apparatus according to claim 1, wherein the apparatus further comprises~~
a display apparatus ~~which is overlapped on~~ overlaps the coordinate input apparatus, and
the first axis defines a normal direction to a display area plane of the display apparatus, and the second and third axes define the display area plane of the display apparatus.

4. (Currently Amended) A coordinate input apparatus which detects position coordinates of a coordinate input pointing tool, comprising:
- calculation means for calculating position coordinates in a space defined by first to third axes of the coordinate input pointing tool;
- comparison means for comparing a value of the first axis of the coordinate values calculated by the calculation means with a predetermined value;
- determination means for determining whether the coordinate values of the second and third axes of the coordinate values calculated by the calculation means fall within a predetermined range; and
- output means for outputting the coordinate values calculated by the calculation means in a coordinate output form determined on the basis of a comparison result by the comparison means and a determination result by the determination means,
- wherein the coordinate output form includes at least

an absolute coordinate output form in which the calculated coordinate values are directly output, and

a relative coordinate output form in which differential values between the calculated coordinate values and predetermined coordinate values are output,

~~The apparatus according to claim 1,~~ wherein the coordinate output form further includes a relative coordinate processing output form in which at least a differential coordinate value between the coordinate value of the second axis and the predetermined coordinate value is multiplied and output.

5. (Original) The apparatus according to claim 4, wherein the apparatus further comprises a display apparatus which is overlapped on the coordinate input apparatus, and

the first axis defines a normal direction to a display area plane of the display apparatus, the second axis defines a horizontal direction of the display area plane of the display apparatus, and the third axis defines a vertical direction of the display area plane of the display apparatus.

6. (Original) The apparatus according to claim 4, wherein a magnification factor of the multiplication of the differential coordinate value in the relative coordinate processing output form is set on the basis of the coordinate value of the first axis.

7. (Original) The apparatus according to claim 4, wherein a

magnification factor of the multiplication of the differential coordinate value in the relative coordinate processing output form is set on the basis of the position coordinates.

8. to 10. (Cancelled)

11. (Currently Amended) A coordinate input apparatus which detects position coordinates of a coordinate input pointing tool and displays information based on the position coordinates on a display apparatus, comprising:

calculation means for calculating the position coordinates of the coordinate input pointing tool;

determination means for determining whether the position coordinates calculated by said calculation means fall within a display area of the display apparatus;

determination means for determining on the basis of a determination result whether the position coordinates or differential coordinate values between the position coordinates and predetermined coordinates should be output; and

setting means for setting the display area of the display apparatus.

~~The apparatus according to claim 9,~~ wherein the apparatus further comprises switch state determination means for determining operative states of a plurality of switches of the coordinate input pointing tool, and

~~said coordinate output control means~~ outputs for outputting the position coordinates or the differential coordinate values between the position coordinates and the predetermined coordinates or inhibits output of the position coordinates on the basis of the

determination result of said determination means and a determination result of said switch state determination means.

12. (Currently Amended) A coordinate input apparatus which detects position coordinates of a coordinate input pointing tool and displays information based on the position coordinates on a display apparatus, comprising:

calculation means for calculating the position coordinates of the coordinate input pointing tool;

determination means for determining whether the position coordinates calculated by said calculation means fall within a display area of the display apparatus;

determination means for determining on the basis of a determination result whether the position coordinates or differential coordinate values between the position coordinates and predetermined coordinates should be output; and

setting means for setting the display area of the display apparatus.

~~The apparatus according to claim 9,~~ wherein the predetermined coordinates are first effective coordinate values during a continuous input period in which coordinate input is continuously executed, and

the apparatus further comprises storage means for storing the first effective position coordinates calculated by said calculation means during the continuous input period as the predetermined coordinates.

13. to 16. (Cancelled)

17. (New) A method for a coordinate input apparatus for detecting position coordinates of a coordinate input pointing tool, the method comprising:

- a calculation step of calculating position coordinates in a space defined by first to third axes of the coordinate input pointing tool;
- a comparison step of comparing a value of the first axis of the coordinate values calculated in the calculation step with a predetermined value;
- a determination step of determining whether the coordinate values of the second and third axes of the coordinate values calculated in the calculation step fall within a predetermined range; and
- an output step of outputting the coordinate values calculated in the calculation step in a coordinate output form determined on the basis of a comparison result in the comparison step and a determination result in the determination step,

wherein the coordinate output form includes at least

- an absolute coordinate output form in which the calculated coordinate values are directly output, and
- a relative coordinate output form in which differential values between the calculated coordinate values and predetermined coordinate values are output,

wherein the predetermined coordinate values are first effective coordinate values during a continuous input period in which coordinate input is continuously executed, and

the method further comprises a storage step for storing the first effective position coordinates calculated in said calculation step during the continuous input period as the predetermined coordinate values.

18. (New) A method for a coordinate input apparatus for detecting position coordinates of a coordinate input pointing tool, the method comprising:

- a calculation step of calculating position coordinates in a space defined by first to third axes of the coordinate input pointing tool;
- a comparison step of comparing a value of the first axis of the coordinate values calculated in the calculation step with a predetermined value;
- a determination step of determining whether the coordinate values of the second and third axes of the coordinate values calculated in the calculation step fall within a predetermined range; and
- an output step of outputting the coordinate values calculated in the calculation step in a coordinate output form determined on the basis of a comparison result in the comparison step and a determination result in the determination step,

wherein the coordinate output form includes at least

- an absolute coordinate output form in which the calculated coordinate values are directly output, and
- a relative coordinate output form in which differential values between the calculated coordinate values and predetermined coordinate values are output,

wherein a display apparatus overlaps the coordinate input apparatus, and the first axis defines a normal direction to a display area plane of the display apparatus, and the second and third axes define the display area plane of the display apparatus.

19. (New) A method for a coordinate input apparatus for detecting position coordinates of a coordinate input pointing tool, the method comprising:

- a calculation step of calculating position coordinates in a space defined by first to third axes of the coordinate input pointing tool;
- a comparison step of comparing a value of the first axis of the coordinate values calculated in the calculation step with a predetermined value;
- a determination step of determining whether the coordinate values of the second and third axes of the coordinate values calculated in the calculation step fall within a predetermined range; and
- an output step of outputting the coordinate values calculated in the calculation step in a coordinate output form determined on the basis of a comparison result in the comparison step and a determination result in the determination step,

wherein the coordinate output form includes at least

- an absolute coordinate output form in which the calculated coordinate values are directly output, and
- a relative coordinate output form in which differential values between the calculated coordinate values and predetermined coordinate values are output,

wherein the coordinate output form further includes a relative coordinate processing output form in which at least a differential coordinate value between the coordinate value of the second axis and the predetermined coordinate value is multiplied and output.

20. (New) A method for a coordinate input apparatus for detecting position coordinates of a coordinate input pointing tool and displaying information based on the position coordinates on a display apparatus, the method comprising:

a calculation step of calculating the position coordinates of the coordinate input pointing tool;

a determination step of determining whether the position coordinates calculated in said calculation step fall within a display area of the display apparatus;

a determination step of determining on the basis of a determination result whether the position coordinates or differential coordinate values between the position coordinates and predetermined coordinates should be output; and

a setting step of setting the display area of the display apparatus,

wherein the method further comprises a switch state determination step of determining operative states of a plurality of switches of the coordinate input pointing tool, and

a coordinate output control step of outputting the position coordinates or the differential coordinate values between the position coordinates and the predetermined coordinates or inhibits output of the position coordinates on the basis of the determination result of said determination step and a determination result of said switch state determination step.

21. (New) A method for a coordinate input apparatus for detecting position coordinates of a coordinate input pointing tool and displaying information based on the position coordinates on a display apparatus, the method comprising:

a calculation step of calculating the position coordinates of the coordinate input pointing tool;

a determination step of determining whether the position coordinates calculated in said calculation step fall within a display area of the display apparatus;

a determination step of determining on the basis of a determination result whether the position coordinates or differential coordinate values between the position coordinates and predetermined coordinates should be output; and

a setting step of setting the display area of the display apparatus,

wherein the predetermined coordinates are first effective coordinate values during a continuous input period in which coordinate input is continuously executed, and

the method further comprises a storage step of storing the first effective position coordinates calculated in said calculation step during the continuous input period as the predetermined coordinates.

22. (New) A computer-executable program stored on a computer-readable medium, the program for a coordinate input apparatus for detecting position coordinates of a coordinate input pointing tool, the program comprising code for:

a calculation step of calculating position coordinates in a space defined by first to third axes of the coordinate input pointing tool;

a comparison step of comparing a value of the first axis of the coordinate values calculated in the calculation step with a predetermined value;

a determination step of determining whether the coordinate values of the second and third axes of the coordinate values calculated in the calculation step fall within a predetermined range; and

an output step of outputting the coordinate values calculated in the calculation step in a coordinate output form determined on the basis of a comparison result in the comparison step and a determination result in the determination step,

wherein the coordinate output form includes at least

an absolute coordinate output form in which the calculated coordinate values are directly output, and

a relative coordinate output form in which differential values between the calculated coordinate values and predetermined coordinate values are output,

wherein the predetermined coordinate values are first effective coordinate values during a continuous input period in which coordinate input is continuously executed, and

the program further comprises code for a storage step for storing the first effective position coordinates calculated in said calculation step during the continuous input period as the predetermined coordinate values.

23. (New) A computer-executable program stored on a computer-readable medium, the program for a coordinate input apparatus for detecting position coordinates of a coordinate input pointing tool, the program comprising code for:

a calculation step of calculating position coordinates in a space defined by first to third axes of the coordinate input pointing tool;

a comparison step of comparing a value of the first axis of the coordinate values calculated in the calculation step with a predetermined value;

a determination step of determining whether the coordinate values of the second and third axes of the coordinate values calculated in the calculation step fall within a predetermined range; and

an output step of outputting the coordinate values calculated in the calculation step in a coordinate output form determined on the basis of a comparison result in the comparison step and a determination result in the determination step,

wherein the coordinate output form includes at least

an absolute coordinate output form in which the calculated coordinate values are directly output, and

a relative coordinate output form in which differential values between the calculated coordinate values and predetermined coordinate values are output,

wherein a display apparatus overlaps the coordinate input apparatus, and

the first axis defines a normal direction to a display area plane of the display apparatus, and the second and third axes define the display area plane of the display apparatus.

24. (New) A computer-executable program stored on a computer-readable medium, the program for a coordinate input apparatus for detecting position coordinates of a coordinate input pointing tool, the program comprising code for:

a calculation step of calculating position coordinates in a space defined by first to third axes of the coordinate input pointing tool;

a comparison step of comparing a value of the first axis of the coordinate values calculated in the calculation step with a predetermined value;

a determination step of determining whether the coordinate values of the second and third axes of the coordinate values calculated in the calculation step fall within a predetermined range; and

an output step of outputting the coordinate values calculated in the calculation step in a coordinate output form determined on the basis of a comparison result in the comparison step and a determination result in the determination step,

wherein the coordinate output form includes at least

an absolute coordinate output form in which the calculated coordinate values are directly output, and

a relative coordinate output form in which differential values between the calculated coordinate values and predetermined coordinate values are output,

wherein the coordinate output form further includes a relative coordinate processing output form in which at least a differential coordinate value between the coordinate value of the second axis and the predetermined coordinate value is multiplied and output.

25. (New) A computer-executable program stored on a computer-readable medium, the program for a coordinate input apparatus for detecting position coordinates of a coordinate input pointing tool and displaying information based on the position coordinates on a display apparatus, the program comprising code for:

a calculation step of calculating the position coordinates of the coordinate input pointing tool;

a determination step of determining whether the position coordinates calculated in said calculation step fall within a display area of the display apparatus;

a determination step of determining on the basis of a determination result whether the position coordinates or differential coordinate values between the position coordinates and predetermined coordinates should be output; and

a setting step of setting the display area of the display apparatus,

wherein the program further comprises code for a switch state determination step of determining operative states of a plurality of switches of the coordinate input pointing tool, and

a coordinate output control step of outputting the position coordinates or the differential coordinate values between the position coordinates and the predetermined coordinates or inhibits output of the position coordinates on the basis of the determination result of said determination step and a determination result of said switch state determination step.

26. (New) A computer-executable program stored on a computer-readable medium, the program for a coordinate input apparatus for detecting position coordinates of a coordinate input pointing tool and displaying information based on the position coordinates on a display apparatus, the program comprising code for:

a calculation step of calculating the position coordinates of the coordinate input pointing tool;

a determination step of determining whether the position coordinates calculated in said calculation step fall within a display area of the display apparatus;

a determination step of determining on the basis of a determination result whether the position coordinates or differential coordinate values between the position coordinates and predetermined coordinates should be output; and

a setting step of setting the display area of the display apparatus,

wherein the predetermined coordinates are first effective coordinate values during a continuous input period in which coordinate input is continuously executed, and

the program further comprises code for a storage step of storing the first effective position coordinates calculated in said calculation step during the continuous input period as the predetermined coordinates.

27. (New) The apparatus according to claim 11, wherein said setting means sets the display area on the basis of coordinate values of at least three display area corner portions of the display area.

28. (New) The apparatus according to claim 12, wherein said setting means sets the display area on the basis of coordinate values of at least three display area corner portions of the display area.